

ARC9200001010S1  
09/768,458

In the Drawings:

None

ARC9200001010S1  
09/768,458REMARKS

This amendment is in response to the Examiner's Office Action dated 12/29/2004. Reconsideration of this application is respectfully requested in view of the foregoing amendment and the remarks that follow.

STATUS OF CLAIMS

Claims 1-13 and 15-33 are pending.

Claims 1, 2, 5-10, 12, 15-17, 19-28, 32 and 33 stand rejected under 35 USC 102(e) as being anticipated by Conrad et al. (USP 6,810,527).

Claims 3, 4, 11, 13, 18 and 29-31 stand rejected under 35 USC 103(a) as being unpatentable over Conrad.

OVERVIEW OF CLAIMED INVENTION

The presently claimed invention provides for a system and method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule or services (time, location). The present invention automatically identifies windows of opportunity (time, physical location), and once such a window of opportunity is detected, the invention determines whether people are affected directly from the change of a schedule. This information is then used by service providers to act quickly, in order to enhance sales. The present invention does not need to know who the affected people are, nor their preferences (profile data). Heuristics to determine a window of opportunity are based only on schedule changes, which are associated with a rule database. Thus, the present system utilizes network-based technologies and communications to generate or increase additional sales for service providers.

Page 11 of 23

ARC920000101US1  
09/768,458

As an example, consider a train, which is scheduled to leave at 7:00 AM, but due to unknown circumstances the schedule is changed to 7:45 AM. There is a good chance that there are people who use this train to commute to work, and were not informed in time about this unexpected change in a scheduled event. Most of these people probably will decide to wait there until 7:45 AM, instead of investigating alternatives. The present invention's system and method identifies such unexpected events as "window of opportunities". This information is then used by service providers to deliver useful services to these waiting people in order to help them satisfy their demands or utilize their blocked time. Hence, service providers like food delivery services, newspaper delivery services, taxicab services, etc., utilize an opportunistic approach to deliver useful services for these waiting people in order to help meet their demands (e.g., by delivering food, etc.) or utilize their blocked time (e.g., by selling a magazine, providing entertainment, etc.)

#### REJECTIONS UNDER 35 USC 102(e)

Claims 1, 2, 5-10, 12, 15-17, 19-28, 32 and 33 stand rejected under 35 USC 102(e) as being anticipated by Conrad et al. (USP 6,810,527). To be properly rejected 35 USC 102(e), the cited reference must provide each and every claim element of a system/apparatus claim, or each and every step of a method claim. Applicants contend that the Conrad reference either explicitly or implicitly fails to provide for many of the claim limitations as required by claims 1, 2, 5-10, 12, 15-17, 19-28, 32 and 33.

Applicants wish to emphasize that it is the duty of the examiner to specifically point out limitations with respect to each and every claim element such that applicants' are aware of how the examiner is applying a reference in a rejection. In pages 2-3 of the office action of 12/29/2004, the examiner has rejected claims 1, 2, 5-10, 12, 15-17, 19-28, 32 and 33. The

*Page 12 of 23*

ARC920000101091  
09/768,458

examiner has mixed the claim elements of independent claims 1 and 15 when providing his rejections, but has failed to address limitations with respect to independent claims 20 and 33. Also, applicants' wish to note that the examiner has failed to address each and every claim element of independent claim 15. Furthermore, the examiner has addressed rejections to dependent claims 5, 7, 9, 19, 22, 23, 26 and 32 on page 3 of the office action of 12/29/2004. Limitations with respect to dependent claims 2, 6, 8, 10, 12, 16, 17, 21, 24, 25, 27, and 28 are not addressed anywhere in the office action. Applicants contend that the examiner has failed to clearly identify specific limitations of each and every claim that is rejected as per M.P.E.P guidelines as per §1.104(c)(2) of Title 37 of the Code of Federal Regulations and section 707 of the M.P.E.P, which explicitly states that "the particular part relied on must be designated" and "the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified". Hence, due to the lack of specificity on part of the examiner, applicants have responded to independent claims 15, 20, and 33 in view of the Conrad reference in its entirety.

The Conrad reference provides a content distribution and delivery system that aggregates and delivers live television content and other data content to a plurality of member aircraft operated by airlines that participate in the service. Global operations center GOC (42) delivers global live, timely content, advertisements, shows and films to the member aircraft. Content is digitized, packetized, multiplexed and addressed using one or more individual or group addresses corresponding to a plurality of distribution criteria such as aircraft number, flight number, flight phase, airline, cabin class, language, date, time of day, flight origin, flight destination, passenger demographics and other criteria. A media server system with an on-board system controller 222 is provided that receives the content, combines it with on-board stored content and generates a play-out schedule for the combined content. Advertisements may also be included with news

Page 13 of 23

ARC9200001010S1  
09/768,458

and entertainment content distributed to aircraft on advertising slots received from sponsors of the service.

Claim 1 of applicants' invention, on the other hand, provides for a system for enhancing sales for service providers by utilizing an opportunistic approach based on unexpected change in a schedule of service. The system of applicants' claim 1 comprises an event retriever, an event observer, and a window of opportunity detector. The event retriever generates an event pair which comprises a target value and an actual value associated with the schedule of services. The event observer receives the event pairs from the event retriever, calculates the difference between the actual and target value, and based on one or more rules from a first set of rules, identifies and notifies a window of opportunity detector regarding potential windows of opportunities, wherein each potential window of opportunity defines a time period of customer inactivity. The window of opportunity detector receives potential windows of opportunities, detects, based on one more rules from a set of second rules, if a window of opportunity exists, and if so, matches the detected windows of opportunities with service providers for the purposes of providing a new product or a service separate from said scheduled service.

The examiner has equated the event retriever of claim 1 to airlines 45 of the Conrad reference. A closer reading of the citations, however, fails to teach or suggest such limitations. Airlines 45, in column 4, lines 21-22 of the Conrad reference is defined as an entity that operates "a plurality of member aircraft". Applicants' are unable to find any teaching or suggestion, either in the citations or the entire Conrad reference, for using airlines 45 to generate an event pair (e.g., [X, Y]) based on an acquired target value (e.g., a time X that a train T is scheduled to arrive) and an actual value (e.g. a time Y that the train T is actually supposed to arrive) associated with a scheduled service (e.g. train service). Hence, applicants contend that the examiner has

ARC9200001010S1  
09/768,438

erroneously equated Conrad's airlines 45 with the present inventions' event retriever without providing any discussion on how airlines 45 generate an event pair.

Another limitation of applicants' claim 1 is an event observer that receives such event pairs and identifies, based on a set of rules, potential windows of opportunities that define a period of customer inactivity. The examiner has equated the event observer of claim 1 to LOC 43 of the Conrad reference. A closer read of the Conrad reference, however, merely suggests that element 43 (LOC -local operations centers) delivers content to "local or global aircrafts 50 and 53" (see column 4, line 61 - column 5, line 1). The examiner has also cited column 5, lines 49-55 of the Conrad reference as providing for the limitation of receiving the event pair from the event retriever, calculating the difference between the actual and target values and based on one or more rules from a first set of rules, identifying and notifying a window of opportunity detector of potential windows of opportunities defined as a time period of customer inactivity (for example, if an event observer receives the event pair [7:00 am, 7:45am], the calculated difference of 45 minutes is labeled as a potential window or opportunity). A closer reading of the citations, however, fails to provide such limitations. Column 5, lines 49-55 of the Conrad reference merely provide for mixing live content from sources such as news, sports, weather, etc. created for a member aircraft based on criteria (313) such as airline, aircraft, aircraft tail number, schedules arrival and departure times etc. The examiner erroneously equates the first set of rules of claim 1 with criteria 313 of the Conrad reference. Hence, Conrad reference makes no mention of receiving event pairs, calculating a difference between an actual and target value and identifying and notifying a window opportunity detector of potential windows of opportunities (defining time period of customer inactivity) based on a first set of rules. The examiner has also equated the window of opportunity detector of claim 1 to an on-board controller 222 of the Conrad

Page 15 of 23

ARC920000101081  
09/768,458

reference. A closer read of the Conrad reference, however, merely suggests that element 222 routes incoming media and database files from satellite receiver or wireless airport network to their proper location on a media file server 218. The Conrad reference provides no recitation or suggestion of identifying and notifying a window of opportunity detector regarding potential windows of opportunity based on a period of customer inactivity.

The examiner has further cited column 11, lines 1-14 of the Conrad reference as providing for the limitation of a window of opportunity detector receiving potential windows of opportunities and detecting if a window of opportunity exists based on one or more rules from a set of second rules. The examiner also asserts that element 211 of the Conrad reference performs this step. A closer read of the Conrad reference, however, fails to teach or suggest such limitations. Column 11, lines 1-14 of the Conrad reference merely suggests using the rules for securing content to member aircrafts, for distributing content that define and control play-out schedules, and for controlling the distribution of content to various zones in a plane. Furthermore, element 211 in the Conrad reference is a receiver/decoder subsystem that allows individual passenger controlled access to content. The Conrad reference provides no recitation or suggestion of receiving potential windows of opportunities and detecting if a window of opportunity exists based on a set of rules.

The examiner also cites column 10, lines 50-53 of the Conrad reference as providing the limitations of matching and distributing detected windows of opportunity with service providers if an opportunity exists. A closer read of the Conrad reference, however fails to provide such limitations. Column 10, lines 50-53 merely suggest the distribution of content to an in-flight entertainment system according to channel schedules. The Conrad reference provides no

ARC920000101US1  
09/769,458

recitation or suggestion of matching the detected windows of opportunity with service providers if an opportunity exists. The examiner cites column 15, lines 25-44 of the Conrad reference as providing limitations of providing a new product or service from service providers to passengers during the period of inactivity. Column 15, lines 25-44 of the Conrad reference merely suggests providing passengers with targeted and destination specific advertisements. However, applicants' invention requires the providing of a new product or service from service providers during the period of inactivity (for example, if a scheduled train is delayed, then, other services such as cab ride, food, magazines, etc., are offered by service providers to persons that use such a train). The Conrad reference does not provide any recitations or suggestions providing these services during the period of customer inactivity.

Based on the arguments presented above, applicants contend that independent claim 1 cannot be anticipated or rendered obvious by the Conrad reference.

Applicants' independent claim 15 provide for a method for enhancing the sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service. Claim 15 comprises the steps of: electronically acquiring service schedules of one or more service providers, detecting an unexpected change in said schedule, checking if potential customers are blocked due to said unexpected change in schedule wherein blocking defines a period of inactivity, detecting one or more potential windows of opportunities for sales to said potential customers, checking if service providers benefit from said detected potential windows of opportunities, and providing notification regarding said potential windows of opportunities to service providers who benefit from such information. The service providers in



ARC920000101US1  
09/768,458

claim 15 offer a new product or service separate from said scheduled service to said potential customer during the period of inactivity.

The applicants wish to bring to the examiners' attention that the examiner has failed to address all elements of claim 15 in the office action dated 12/29/2004 specifically. The examiner has selectively chosen to address some elements of claim 15 on page 2 of the office action. Thus, the applicant contends that the examiner has provided an improper rejection under 35 USC 102(e). The examiner cites column 10, lines 10-13 of the Conrad reference as providing the limitations of electronically acquiring service schedules of one or more service providers wherein providers are equated to elements 44 and 46. A closer read of the Conrad reference, however, fails to provide such limitations. Column 10, lines 10-13 of the Conrad reference merely provide communication protocols that may be used for transfer of content such as advertisements/shows and not service schedules. Claim 15 of applicants' invention requires the schedule to be a service schedule (for example, a train or bus schedule). The examiner cites column 12, lines 16-26 of the Conrad reference as providing the limitations of detecting an unexpected change in a schedule. Column 12, lines 16-26 of the Conrad reference merely suggest the formation of channel schedules based on multiple inputs, for example, weather conditions, delays in landing, cancellations, etc. However, claim 15 of applicants' invention requires the active detection of change in schedule. Furthermore, claim 15 requires that a check is made to see if customers are blocked (period of inactivity) due to this change. The Conrad reference fails to teach or suggest the above limitations.

Applicants' independent claim 33 provides for an article of manufacture implementing the steps of Claim 15, wherein the sales for service providers is enhanced by utilizing an

Page 18 of 23

ARC920000101US1  
09/768,458

opportunistic approach based on an unexpected change in a schedule of service. Hence, the arguments set forth by the applicant for claim 15 substantially apply to claim 33 of the applicants' invention. The applicants wish to bring to the examiners' attention that the examiner has failed to address all elements of claim 33 in the office action dated 12/29/2004. Thus, the applicants contend that the examiner has provided an improper rejection under 35 USC 102(e).

Applicants' independent claim 20 provides for a method for enhancing the sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services. The method of claim 20 comprises the steps of: extracting standardized event data (comprising an actual event value and a target value) from said travel service provider via a network, comparing (based on one or more rules from a set of first rules) the difference of said actual value and target value against a threshold value, detecting a window of opportunity based on one or more rules from a set of second rules, and distributing the window of opportunity information to service providers for enhancing said service providers' sales. If the window of opportunity is detected, the service providers offer the customer a new product or a new service that is different from the scheduled service.

Limitations of claim 20 are that event data comprising event value and target value are extracted from a travel service provider, windows of opportunities are detected based on a set of rules and are matched with service providers who then provide a new product or service that is different than the scheduled service. Another limitation of claim 20 is that it requires the distribution of window of opportunity information to the service providers. The Conrad reference, explicitly or implicitly, fails to teach or render obvious the limitation of extracting

ARC9200001010S1  
09/768,458

event data, detecting windows of opportunities based on a set of rules and establishing contact with any of the service providers based on a calculated period of inactivity.

Based on the arguments presented above, applicants contend that independent claims 15, 20 and 33 cannot be anticipated or rendered obvious by the Conrad reference.

On page 3 of the office action dated 12/29/2004, the examiner cites column 6, lines 30-35 of Conrad reference as providing the limitations of dependent claims 5 and 23 of applicants' invention. Claims 5 and 23 provide for the limitation of a threshold rule wherein potential windows of opportunities are identified based on comparing the difference between actual and target values against the threshold. A closer read of the Conrad reference, however, fails to provide such limitations. Column 6, lines 30-35 of the Conrad reference merely suggest the generation of play-out schedules for playing of content. The Conrad reference provides no recitation or suggestion of potential windows of opportunities being identified based on comparing the difference between actual and target values against the threshold.

The above mentioned arguments for independent claims 1, 15, and 20 also substantially apply to dependent claims 5, 7, 9, 19, 22, 23, 26 and 32 as they inherit all the limitations of the claims from which they depend. Specifically, on page 3 of the office action dated 12/29/2004, the examiner cites column 6, lines 42-58 and column 7, lines 48-58 of Conrad reference as providing the limitations of dependent claims 7, 9, 19, 22, 26 and 32 of applicants' invention. Column 6, lines 42-50 of the Conrad reference merely provide the provisioning of ad slots in content that is played out to the passengers. Also, column 7, lines 48-58 provide for searching of ad slots based on criteria such as airline, region, etc. Claim 7 of applicants' invention requires

Page 20 of 23

ARC920000101US1  
09/768,458

that the subscription management service provide events and schedules, not advertisements. Also, dependent claims 9, 19, 22, 26 and 32 of applicants' invention provide for data events such as changes in schedules of trains, planes, buses, etc. Claims 9 and 19 disclose the data events as being iCalender events. Claim 22 discloses the data events as being arrival/departure times and locations of an airline. Claim 26 discloses the extracting of data events. Claim 32 is a dependent claim of claim 26 that also teaches the standardizing of event data based on iCalender standard. Conspicuously absent from the Conrad reference is any discussion of data events specifically iCalender events.

Applicants' wish to bring to the examiner's attention that any reference to dependent claims 2, 6, 8, 10, 12, 16, 17, 21, 24, 25, 27, and 28 is conspicuously absent from the office action dated 12/29/2004. Thus, the applicants contend that the examiner has provided an improper rejection under 35 USC 102(e). The above mentioned arguments for independent claims 1, 15 and 20 also substantially apply to dependent claims 2, 6, 8, 10, 12, 16, 17, 21, 24, 25, 27, and 28 as they inherit all the limitations of the claims from which they depend.

#### REJECTIONS UNDER 35 USC 103(a)

Claims 3, 4, 11, 13, 18 and 29-31 stand rejected under 35 USC 103(a) as being unpatentable over Conrad. To be properly rejected under U.S.C. § 103(a), each and every element of the claims must be addressed through known prior art or be recognized as an obvious variation thereof. Applicants contend that the Conrad reference fails to provide many of the limitations of applicants' pending claims.

ARC920000101US1  
09/768,458

The above mentioned arguments for independent claims 1, 15 and 20 also substantially apply to dependent claims 3, 4, 11, 13, 18, and 29-31 as they inherit all the limitations of the claims from which they depend.

The examiner merely states that it would have been obvious include XML or DTD schema within the media distribution system of Conrad et al. Applicants' contend that this statement is a mere assertion as the examiner has failed to show any teaching in the Conrad reference that would allow one of ordinary skill in the art to have modified Conrad's teaching to provide for applicants' opportunistic approach of claim 1, 15 or 20 wherein event pairs are extracted from service provider schemas in the form of DTD or XML.

Similarly, the examiner merely states that it would be obvious to achieve the operation to retrieve, interpret and execute data from computer platforms by a web crawler. Applicants' contend that this statement is a mere assertion as the examiner has failed to show any teaching in the Conrad reference that would allow one of ordinary skill in the art to have modified Conrad's teaching to provide for applicants' opportunistic approach of claim 1, 15 or 20 wherein an event retriever comprises of an enhanced gatherer that received information from service providers using simulated user interaction.

Applicants wish to contend that the examiner has failed to address the limitations of claim 18 wherein data gathering software comprises data mining software. Applicants wish to contend that the examiner has also failed to address the limitations of claim 29 wherein the web document received from a travel service provider is in any of the following formats: HTML, SGML or XML.

Best Available Copy

ARC920000101US1  
09/768,458SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicants' presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

As this amendment has been timely filed within the set period of response, no petition for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided to Deposit Account No. 12-0010.

If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicants' representative at the below number.

Respectfully submitted,

Ramraj Soundararajan

Ramraj Soundararajan  
Registration No. 53832

1725 Duke Street  
Suite 650  
Alexandria, Virginia 22314  
(703) 838-7683  
March 29, 2005

Best Available Copy